

REMARKS

Claims 1-53 were presented in the application as filed. By this amendment, Claim 1 has been amended and Claims 54 and 55 have been added.

Reconsideration of Claims 1-4, 8, 10, 12, 13, 15, 17, 23-24, 27-34, 36, 39, 40-47, 49, 51 and 53, rejected under 35 U.S.C. §103(a) as being unpatentable over Miklos in view of Lehmann et al and Rosenberg, is respectfully requested. Reconsideration of Claims 9, 11, and 10-21, rejected under 35 U.S.C. §103 as being unpatentable over Miklos in view of Lehmann et al and Rosenberg and further in view of Otterness, is respectfully requested. Reconsideration of Claims 25 and 26, rejected under 35 U.S.C. §103 as being unpatentable over Miklos in view of Lehmann et al and Rosenberg and further in view of Sahr et al, is respectfully requested.

None of the patents cited by the Examiner, whether taken alone or in combination with each other, teach or suggest Applicant's towed raft. Applicant's broadest claim, amended Claim 1, requires:

“1. A towed raft comprising: a receiving area substantially defined laterally by a generally U-shaped floating frame having an open end, and upwardly by a spine and rib assembly connected to said frame, said receiving area being configured to receive a marine vessel therein substantially through said open end, said receiving area having a longitudinal centerline, said spine and rib assembly having a spine upwardly spaced from said frame and substantially aligned with said longitudinal centerline, and a plurality of ribs connecting said spine to said frame, said ribs extending generally outwardly and downwardly from said spine, and at least one lifting device secured to said spine, said lifting device being adapted to lift out of the water in which said raft floats in recovery, lower into said water in launch, and retain out of said water and over said receiving area in the transport of said marine vessel.”

In contrast, the patent issued to Miklos discloses a pontoon boat with an area between the pontoons in which a motor boat can be positioned to provide propulsion for the pontoon boat. Miklos does not lift the motor boat out of the water in which the pontoon boat floats. Both the motor boat and the pontoon float in the same water. In fact, Miklos does not disclose or even suggest Applicant's spine and rib assembly nor Applicant's lifting device by which the recovered vessel is lifted out of the water. The Miklos pontoon boat is not a towed raft.

The patent issued to Lehmann et al discloses a buoyant float for recovery of submarines. The patent issued to Lehmann et al does not disclose any hull which floats on the same water as the craft recovered.

The patent issued to Rosenberg discloses a launch and recovery vessel, however, that launch and recovery vessel lifts the craft recovered and positions the craft on the deck. The Rosenberg patent is not a towed vehicle, but is self-propelled. Further, the Rosenberg patent is only for recovery, not for launch or transport other than bringing the recovered craft to dock side.

Claims 2, 5, 6, 8, 13, 15, 17, 19, 21-23, 32, 36, 39, 44, 47, 49, 51, and 53 are each dependent upon Claim 1. Thus, Claims 2, 5, 6, 8, 13, 15, 17, 19, 21-23, 32, 36, 39, 44, 47, 49, 51, and 53 each include all of the language of Claim 1 and are submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 2 further requires:

“said U-shaped floating framed comprises a pair of spaced apart floats connected by a cross brace at a forward end of said frame opposite said open end.”

Claim 5 further requires:

“said lifting device retains said marine vessel within said receiving area with clearance of an underside of said marine vessel above the level of water in which said apparatus floats between about 10 inches and about 30 inches.”

Claim 6 further requires:

“said assembly comprises at least two pairs of ribs, each said pair comprising ribs extending generally outwardly and downwardly from said spine from generally opposite sides of said spine.”

Claim 8 further requires:

“said lifting device comprises a cable having a hook at a distal end thereof and having a connected end wound about a reel, said reel having operative controls for winding and unwinding said cable.”

Claim 13 further requires:

“said frame has a length of between about 25 feet and about 40 feet.”

Claim 15 further requires:

“said frame has a width of between about 8 feet and about 15 feet.”

Claim 17 further requires:

“said frame and said assembly have a dry-dock height of between about 6 feet and about 15 feet.”

Claim 19 further requires:

“a battery stored power source for operating said lifting device.”

Claim 21 further requires:

“each said lifting device is adapted to raise and lower loads of up to about 7500 pounds.”

Claim 22 further requires:

“adapted to be towed at speeds up to about 18 knots with said marine vessel retained within said receiving area.”

Claim 23 further requires:

“said marine vessel comprises a swimmer delivery vehicle.”

Claim 32 further requires:

“mechanical means for propelling said towed raft along a body of water.”

Claim 36 further requires:

“said frame and said assembly define said receiving area having a volumetric capacity of between about 720 cubic feet and about 5,760 cubic feet.”

Claim 39 further requires:

“said spine comprises a generally longitudinal beam spaced above said frame, said ribs extending generally outwardly and downwardly from said beam on laterally opposite sides thereof to said frame.”

Claim 44 further requires:

“at least one tow-line connection point secured generally at a forward end of said frame opposite said open end.”

Claim 47 further requires:

“said receiving area has a height through said longitudinal centerline of between about 6 feet and about 12 feet.”

Claim 49 further requires:

“said receiving area has a width defined by said frame of between about 8 feet and about 15 feet.”

Claim 51 further requires:

“said receiving area has a length from a forward end within said frame to said open end of between about 15 feet and about 32 feet.”

Claim 53 further requires:

“said receiving area has a height through said longitudinal centerline of about 8 feet, a width defined by said frame of about 8 feet, and a length from a forward end within said frame to said open end of about 28 feet.”

Claims 3, 4, 25-29, 43, and 45 are each dependent upon Claim 2. Claim 2 is dependent upon Claim 1. Thus, Claims 3, 4, 25-29, 43, and 45 each include all of the language of Claims 2 and 1 and are submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 3 further requires:

“said floats are substantially parallel, said longitudinal centerline being generally equidistant between said floats.”

Claim 4 further requires:

“a tow winch secured to said cross brace, said winch adapted to tow said marine vessel into position for recovering said marine vessel by said lifting device.”

Claim 25 further requires:

“each said float comprises a hull manufactured of aluminum.”

Claim 26 further requires:

“each said float comprises a hull manufactured of fiberglass.”

Claim 27 further requires:

“each said float comprises a pontoon hull float.”

Claim 28 further requires:

“each said float comprises a catamaran hull float.”

Claim 29 further requires:

“each said float comprises a substantially flat upper surface adapted for occupancy by at least one crew member.”

Claim 43 further requires:

“said cross brace comprises a rigid sheet extending between said floats and secured to said floats generally at opposite ends of said sheet.”

Claim 45 further requires:

“a pair of tow-line connection points, one and the other said connection points being secured on one and the other said floats, respectively, generally at opposite ends of said cross brace.”

Claims 7 and 38 are dependent upon Claim 6. Claim 6 is dependent upon Claim 1. Thus, Claims 7 and 38 each include all of the language of Claims 6 and 1 and are submitted herein to patentably distinguish Applicant’s invention from each of the references, whether taken alone or in combination with each other for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 7 further requires:

“one said lifting device is provided on said spine corresponding to each said pair of ribs.”

Claim 38 further requires:

“each said pair comprises a generally arched construction connecting said spine to said frame.”

Claims 9-12 and 42 are each dependent upon Claim 8. Claim 8 is dependent upon Claim 1. Thus, Claims 9-12 and 42 each include all of the language of Claims 8 and 1 and are submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 9 further requires:

“said operative controls comprise a manual winch.”

Claim 10 further requires:

“said operative controls comprise at least one hydraulic lift cylinder.”

Claim 11 further requires:

“said operative controls comprise a motorized winch.”

Claim 12 further requires:

“each said lifting device is mounted within said spine, said cable and said distal end extending generally downwardly from said spine.”

Claim 42 further requires:

“a control panel operatively connected to said operative control for each said lifting device, said control panel having a plurality of controllers mounted thereon for selectively extending and retracting said cable.”

Claim 14 is dependent upon Claim 13. Claim 13 is dependent upon Claim 1. Thus, Claim 14 includes all of the language of Claims 13 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 14 further requires:

“said length is about 33½ feet.”

Claim 16 is dependent upon Claim 15. Claim 15 is dependent upon Claim 1. Thus, Claim 16 includes all of the language of Claims 15 and 1 and is submitted herein to patentably distinguish Applicant’s invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 16 further requires:

“said width is about 12½ feet.”

Claim 18 is dependent upon Claim 17. Claim 17 is dependent upon Claim 1. Thus, Claim 18 includes all of the language of Claims 17 and 1 and is submitted herein to patentably distinguish Applicant’s invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 18 further requires:

“said dry-dock height is about 8¾ feet.”

Claim 20 is dependent upon Claim 19. Claim 19 is dependent upon Claim 1. Thus, Claim 20 includes all of the language of Claims 19 and 1 and is submitted herein to patentably distinguish Applicant’s invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 20 further requires:

“said battery-stored power source has a power storage capacity sufficient for at least 2 repetitions of a set of lowering and lifting said marine vessel.”

Claim 24 is dependent upon Claim 23. Claim 23 is dependent upon Claim 1. Thus, Claim 24 includes all of the language of Claims 23 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 24 further requires:

“said swimmer delivery vehicle has a passenger capacity of between 2 and 10.”

Claim 30 is dependent upon Claim 29. Claim 29 is dependent upon Claims 2 and 1. Thus, Claim 30 includes all of the language of Claims 29, 2 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 30 further requires:

“each said flat upper surface has an inside perimeter and an outside perimeter, said inside perimeter being adjacent said receiving area, said towed raft further comprising at least one generally upstanding railing extending substantially along said inside perimeter of each said float.”

Claim 31 is dependent upon Claim 30. Claim 30 is dependent upon Claims 29, 2 and 1. Thus, Claim 31 includes all of the language of Claims 30, 29, 2 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 31 further requires:

“at least one generally upstanding railing extending along at least one portion of said outside perimeter.”

Claims 33 and 34 are each dependent upon Claim 32. Claim 32 is dependent upon Claim 1. Thus, Claims 33 and 34 each include all of the language of Claims 32 and 1 and are submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 33 further requires:

“said mechanical means for propelling comprises either a marine outboard motor, a water jet motor or a diesel motor operatively connected to a propeller assembly.”

Claim 34 further requires:

“steering means for navigating said towed raft.”

Claim 35 is dependent upon Claim 34. Claim 34 is dependent upon Claims 32 and 1. Thus, Claim 35 includes all of the language of Claims 34, 32 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 35 further requires:

“said steering means is mounted at a forward end of said towed raft opposite said open end.”

Claim 37 is dependent upon Claim 36. Claim 36 is dependent upon Claim 1. Thus, Claim 37 includes all of the language of Claims 36 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 37 further requires:

“said capacity is about 1,344 cubic feet.”

Claims 40 and 41 are each dependent upon Claim 39. Claim 39 is dependent upon Claim 1. Thus, Claims 40 and 41 each include all of the language of Claims 39 and 1 and are submitted herein to patentably distinguish Applicant’s invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 40 further requires:

“each said lifting device is mounted to the underside of said beam.”

Claim 41 further requires:

“a plurality of rigid support elements secured to said beam generally adjacent each said lifting device, said rigid support elements being adapted for providing structural support to said beam during use of said lifting devices.”

Claim 46 is dependent upon Claim 44 or 45. Claim 44 is dependent upon Claim 1 and Claim 45 is dependent upon Claim 2, which is dependent upon Claim 1. Thus, Claim 46 includes all of the language of Claims 44, 45, 1 and 2 and is submitted herein to patentably distinguish Applicant’s invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim 1. Claim 46 further requires:

“each said connection point is configured to receive a distal connector from a tow line extending rearwardly from a tow craft.”

Claim 48 is dependent upon Claim 47. Claim 47 is dependent upon Claim 1. Thus, Claim 48 includes all of the language of Claims 47 and 1 and is submitted herein to patentably

distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 48 further requires:

“said height is about 8 feet.”

Claim 50 is dependent upon Claim 49. Claim 49 is dependent upon Claim 1. Thus, Claim 50 includes all of the language of Claims 49 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 50 further requires:

“said width is about 8 feet.”

Claim 52 is dependent upon Claim 51. Claim 51 is dependent upon Claim 1. Thus, Claim 52 includes all of the language of Claims 51 and 1 and is submitted herein to patentably distinguish Applicant's invention from each of the references, whether taken alone or in combination with each other, for the same reasons as reiterated hereinabove with regard to Claim

1. Claim 52 further requires:

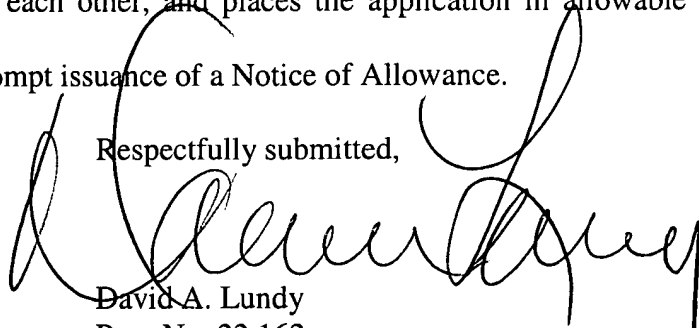
“said length is about 28 feet.”

The Examiner has indicated that Claims 5-7, 14, 16, 18, 22, 35, 37, 38, 41-43, 48, 50 and 52 are objected to as being dependent upon a rejected claim. All of these claims have been indicated to be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claims 6 and 22 have been so rewritten. Applicant respectfully reserves the right to rewrite these claims in independent form at a later time if the

Examiner rejects Claim 1 as amended.

Applicant believes that all of the amendments made herein place all of the claims in a form which distinguishes Applicant's invention from each of the prior art references, whether taken alone or in combination with each other, and places the application in allowable form. Applicant respectfully solicits the prompt issuance of a Notice of Allowance.

Respectfully submitted,

A large, stylized handwritten signature in black ink, appearing to read 'David A. Lundy', is written over the typed name and registration number.

David A. Lundy
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